

## MICRO-ARRAY AS A MOLECULAR IDENTIFICATION TOOL FOR *CULICOIDES*

J.C. de Witte<sup>1</sup> I. Deblauwe<sup>1</sup> G. de Deken<sup>1</sup>  
R. de Deken<sup>1\*</sup> M. Madder<sup>1</sup> D. Geysen<sup>1</sup>

A DNA microarray test based on internal transcribed spacer 1 (ITS1) genotype expression was developed to identify *Culicoides* species of Northwestern Europe belonging to the *Culicoides* Obsoletus complex. The assay was designed so as to allow interpretation by the naked eye. False positive and false negative results were eliminated. The need for expensive laboratory equipment and reagents was kept as low as possible, making the

technique affordable and feasible for any diagnostic laboratory with polymerase chain reaction (PCR) facilities. The microarray test could be validated through the three ringtests organised by Medreonet. Use of this microarray can improve monitoring adult and immature *Culicoides* species.

**KEYWORDS:** *CULICOIDES* – DNA – IDENTIFICATION.

1. Institute of Tropical Medicine, Antwerp Nationalestraat 155, B-2000 Antwerp, Belgium.

\* Corresponding author  
Tel.: +32 32 47 62 70; Fax: +32 32 47 62 68  
E-mail: RDDecken@itg.be